

### **Abstract:**

**Introduction :** today , chronic obstructive pulmonary disease (COPD) is an current medical problem and its exacerbation is one of the current causes of disability in patients and high expense consuming and society economic difficulties . One of The most current causes of exacerbation is bacterial pulmonary infections .

The purpose of the present studying is to investigate of therapeutic effects of the new generation oral drug (clarithromycin) in comparision with current injective therapy in hospital and its complications .

**Materials and methods:** In this clinical trial study 60 patients were selected as diagnosis of COPD exacerbation by attention to the specified criterias by American thorasic association and were compared in two groups with oral and injection therapy. It is necessary to note that this two groups frow view of the predispositional diseases , pulmonary parameters and age ranges and employment conditions and primary symptoms of exacerbation are similar to each others .

At final , raw data was extrated and tobe processed by spss software where win meanwhile , for any descriptive marker in addition to mean and standard deviation computing , to be used t-test for comparing of means , and in all of them , it was significant  $< \%5$  error probability .

**Results :** age range in oral and injection group was 50 – 80 and 40 – 90 and their age means was 52and 43 respectively that it was no significant statistical difference between two groups . Hospitalization duration means in meal group was 9/800 and in injective group was 13/300 .

**Discussion :** The statistical analysis showed that the difference between the mean of hospitalization duration in two groups is significant statistically and to benefit of oral thrapy with clarithromycin . In addition , recovery duration of clinical symptoms in clarithromycin group is also significant difference in comparing with injection group .

It was also showed that pulmonary parameters in both groups has not implied any difference and it is lack of significant difference and in despite of an injective compliciton (phelebitis) , any other disease was not observed in two groups . Althoughn its expensive , but is economical for effect on hospitalization wich decrease it and cen be used instead of injective thrapy in hospital .

**Key words :** clarithromycin , ceferiaxon , COPD , Ardabil .